



After the Historical Radiological Assessment

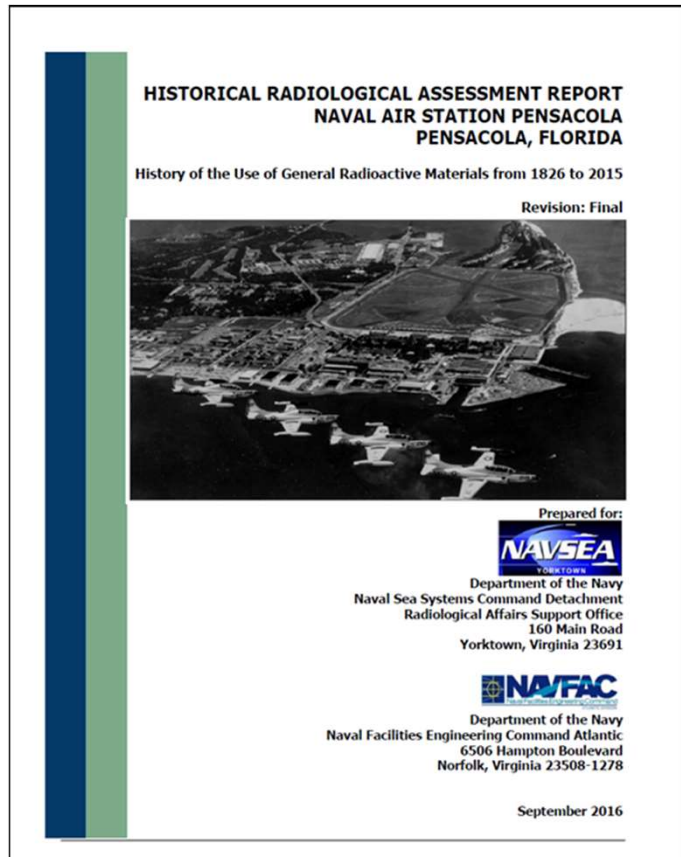
Presented By
Bob Fisher
Naval Facilities Engineering Command (NAVFAC)
Southeast

Objective: Describe Actions Triggered by an HRA



- Describe the Purpose of the Historical Radiological Assessment
- Discuss HRA Content and Output
- Site Indoctrination
 - ER,N Eligibility and Other Programs
 - Existing Sites
- How to Plan for Including in the Budget Process for ER,N
- Preparing for a Preliminary Assessment and Site Investigation

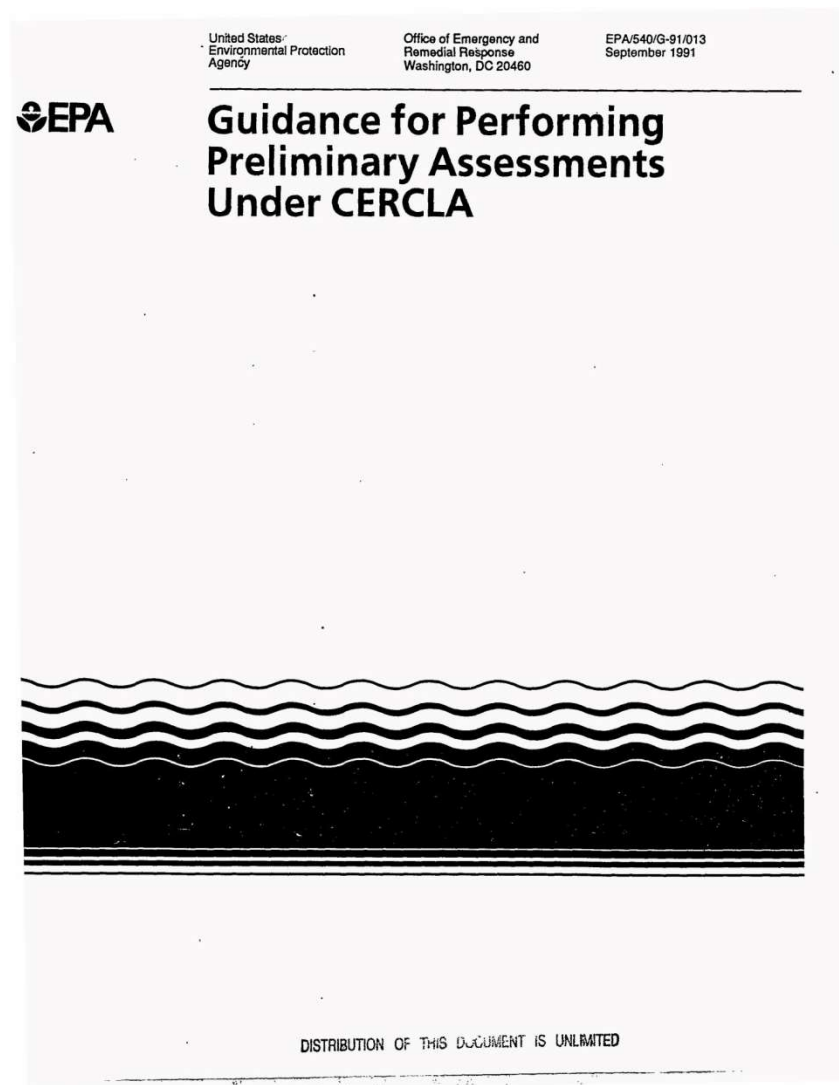
Purpose of the HRA



- **Purpose:**
To assess and document the radiological history of each installation and identify areas that are radiologically impacted as a result of operational use or disposal of *General Radioactive Materials (G-RAM)* and support the decommissioning of license.
- **G-RAM:**
Department of the Navy (DON) radioactive materials excluding Naval Nuclear Propulsion Program or Naval Nuclear Weapons Program radioactive materials.
- **Installation Input:**
Personnel familiar with each installation participate throughout the development of the HRA.

Purpose of the HRA

- Structured like a CERCLA Preliminary Assessment
- Not a Primary Document!
- The Research is thorough and authoritative - Vol 1 NAS Pensacola is ~ 700 pages
- Does not typically include data collection or screening.
- Addresses Land areas and buildings



Slide 4

jln8

Bullet 2 and 3 in notes: BRAC is handled differently and it is a primary document and I have heard of this being in some FFAs. Suggest changing to most of the time.

Bullet 4: Does not go off the base typically. We have addressed some ponds that are fully contained within the base boundaries

Nielsen, Janice L CIV NAVFAC LANT, EV, 2/14/2018

HRA Content



- Final HRA Report will:
 - Present process used to conduct the HRA;
 - Describe the radiological site history and provide references
 - Define areas (land areas/buildings) that are “areas of interest” and/or potentially “impacted” by historical G-RAM radiological operations
 - Important for the RPM to stay engaged, particularly in the final review before the HRA is finalized.

Additional Information Separate from HRA



- Summary of the Areas Identified
- An Initial Comparison of the Conditions to Support Planning

*NAS Pensacola - Historical Radiological Assessment
Summary of Areas of Interest
Considered for the Environmental Restoration, Naval (ER,N) and Installation Programs*

Information pulled from the *Final Historical Radiological Assessment (HRA) Report for Naval Air Station (NAS) Pensacola, September 2016*, to document Areas of Interest (AOI) that will be considered for further evaluation or documentation as part of the Environmental Restoration, Naval Program (ER,N) actions at NAS Pensacola, Corry Station, Saufley Field, and Bronson Field. Where appropriate, other applicable programs are indicated. Attachment is Section 8 from the HRA.

**Preliminary Ranking Areas of Interest (AOIs)
Environmental Restoration, Naval Program (ER,N)
NAS Pensacola, Corry Station, Saufley Field, and Bronson Field**

Further Action: Impacted or Likely Impacted	13	RED
Further Action: Unlikely or Unknown	17	ORANGE
Further Action (Demolished Buildings): Unlikely & Low Risk – Potential LUCs/dig permit (without initial investigation)	61	BLUE
No Further Action	2	GREEN

Additional Information Separate from HRA

NAS Pensacola – AOIs considered for evaluation by Programs outside of ER,N							
#	Site Identifier	Site Name/Description	Classification	Recommended Action	Recommended Program ¹	Page # Section 8 HRA	GRX Designation
1	Building 225	Plant Services Building (Note: Areas outside of the building are addressed in the ER,N Program)	Impacted	Evaluate AOI	Installation	176	Potential Rad Site
2	Building 625D	U.S. Naval School of Aviation Medicine and Research Laboratory	Impacted	Evaluate AOI	Installation	184	Potential Rad Site
3	Building 626A	Veterinary Clinic	Impacted	Evaluate AOI	Installation	191	Potential Rad Site
4	Building 628	Historic Hospital #5 (former U.S. Naval Aviation Medical Center)	Impacted	Evaluate AOI	Installation	195	Potential Rad Site
5	Building 3221	Aircraft Rework Hangar and Overhaul and Repair Department	Impacted	Evaluate AOI	Installation	213	Rad Site
6	Building 26	Foundry	AOI	Evaluate AOI	Installation	290	Potential Rad Site
7	Building 73	Seaplane Hangar	AOI	Evaluate AOI	Installation	307	Potential Rad Site
8	Building 74	Seaplane Hangar	AOI	Evaluate AOI	Installation	307	Potential Rad Site
9	Building 606	Landplane Hangar	AOI	Evaluate AOI	Installation	318	Potential Rad Site
10	Building 607	Landplane Hangar	AOI	Evaluate AOI	Installation	318	Potential Rad Site
11	Building 627	Landplane Hangar	AOI	Evaluate AOI	Installation	318	Potential Rad Site
12	Building 630	Landplane Hangar	AOI	Evaluate AOI	Installation	318	Potential Rad Site
13	Building 648	Dynamic Components Shop	AOI	Evaluate AOI	Installation	327	Potential Rad Site
14	Building 649	Dynamic Components Shop	AOI	Evaluate AOI	Installation	327	Potential Rad Site
15	Building 684	DPDO Warehouse	AOI	Evaluate AOI	Installation	333	Potential Rad Site
16	Building 684A	DPDO Warehouse	AOI	Evaluate AOI	Installation	333	Potential Rad Site
17	Building 685	DPDO Warehouse	AOI	Evaluate AOI	Installation	333	Potential Rad Site
18	Building 741	Metallurgic Test Facility	AOI	Evaluate AOI	Installation	340	Potential Rad Site
19	Building 1771, Wash/Steam Racks, and Outdoor Waste Storage Area	Public Works Transportation Department	AOI	Evaluate AOI	ER,N & Installation	345	Potential Rad Site
20	Building 1853	Maintenance Hangar	AOI	Evaluate AOI	Installation	351	Potential Rad Site
21	Building 1854	Maintenance Hangar	AOI	Evaluate AOI	Installation	351	Potential Rad Site

- Summary of the Areas Identified
- Initial Designation of Appropriate Program
- Approved by Installation and ER,N
- Separate Listing of Areas Evaluated and Determined to Have NO Radiological Impacts Based on Information Available at the Time of the HRA Development

Slide 7

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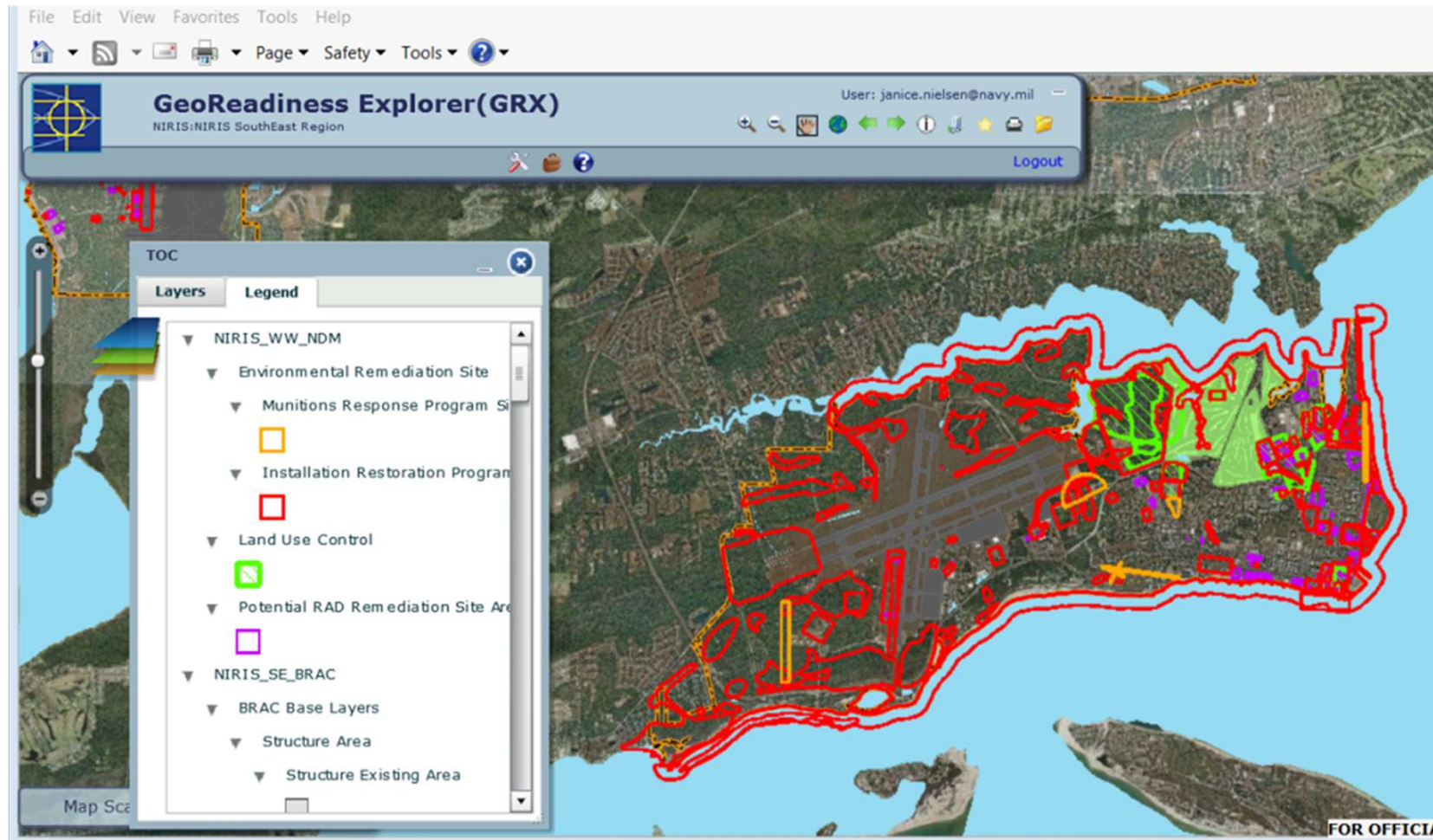
Note bullet 3. Non-Impacted is typically communicated in a separate memorandum. There are sites that are no longer a concern (called previously impacted) that are part of the HRA and this form.

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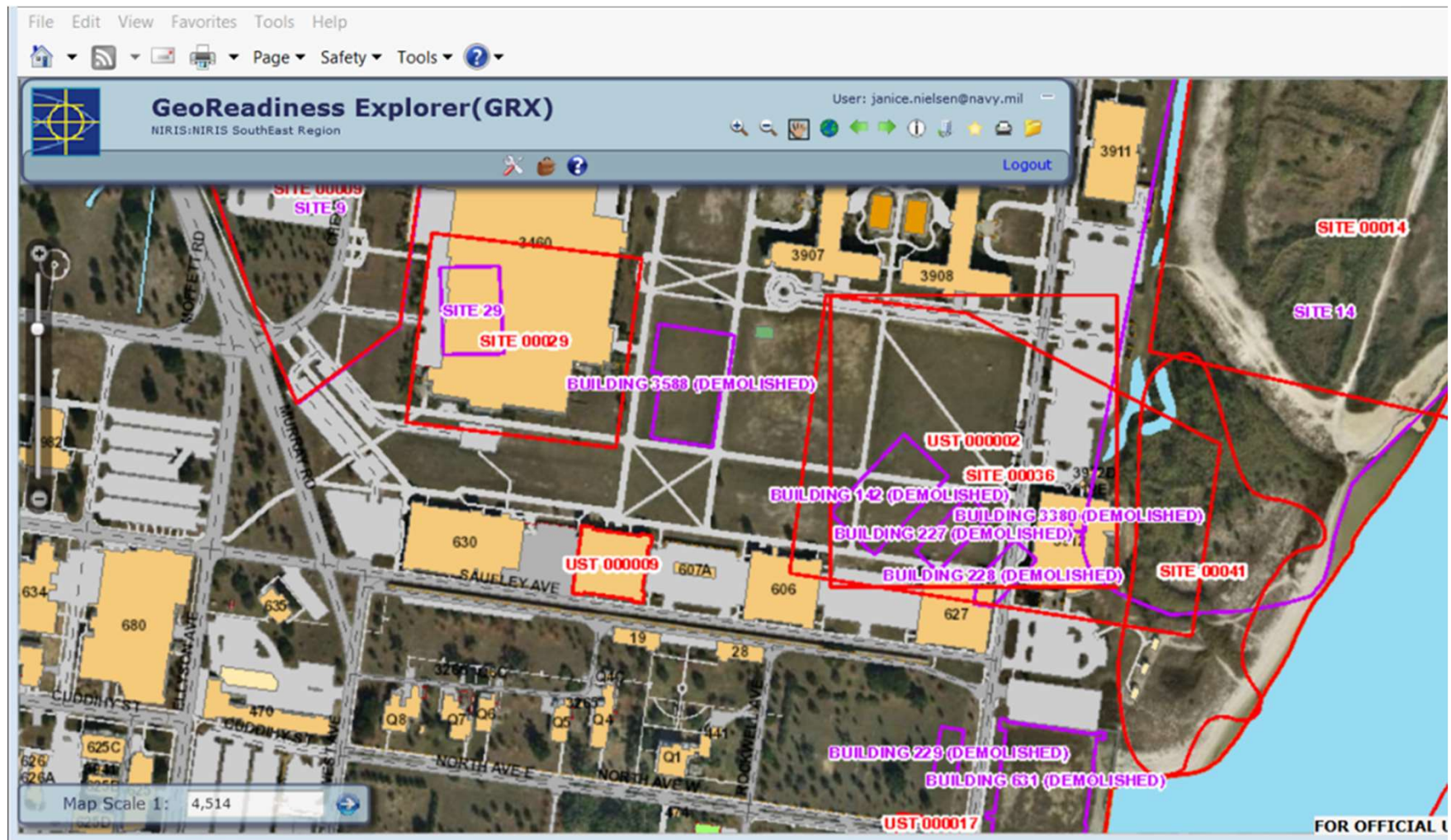
Additional Information Separate from HRA



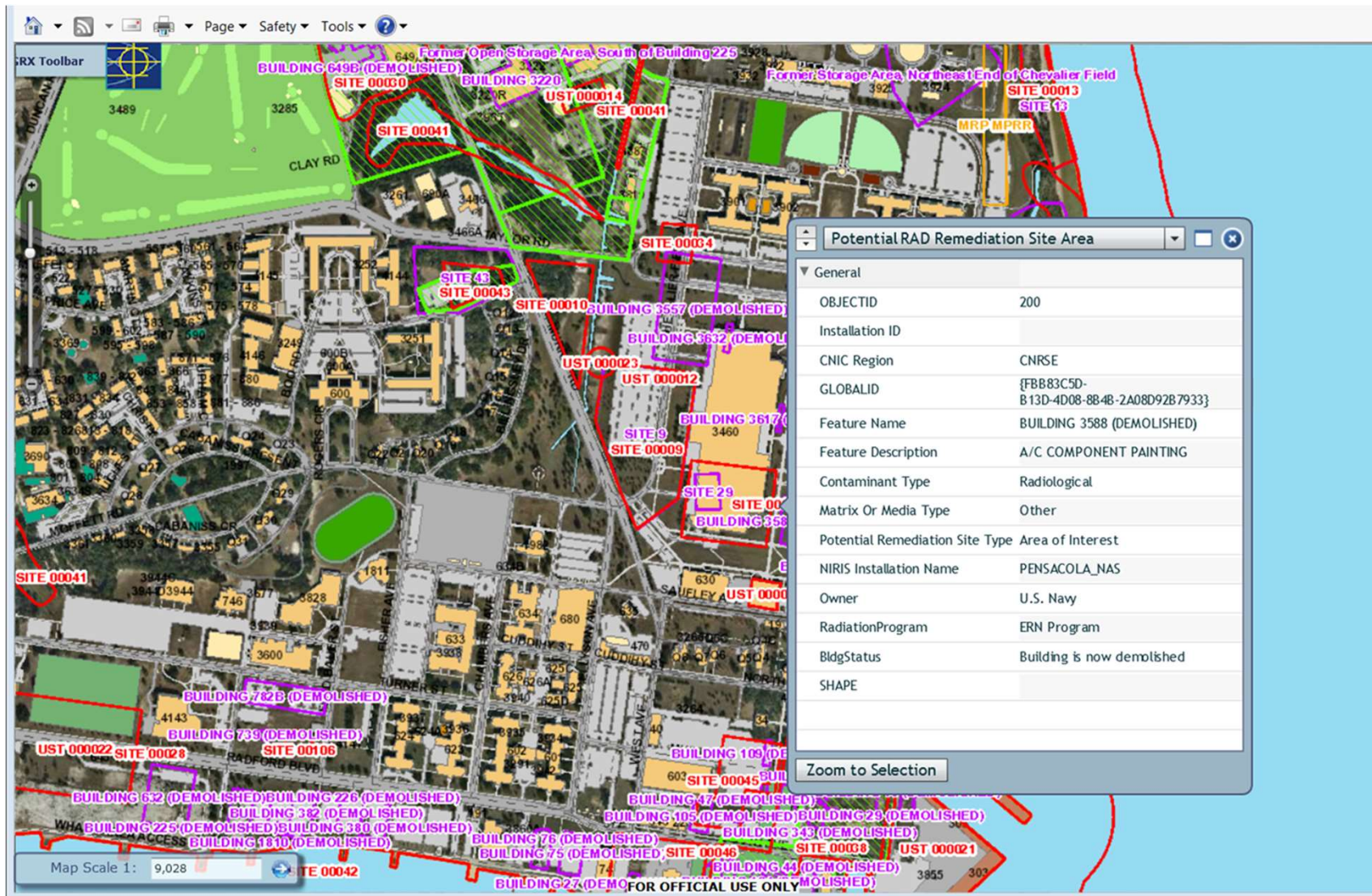
GIS Information Provided Once HRA is Finalized



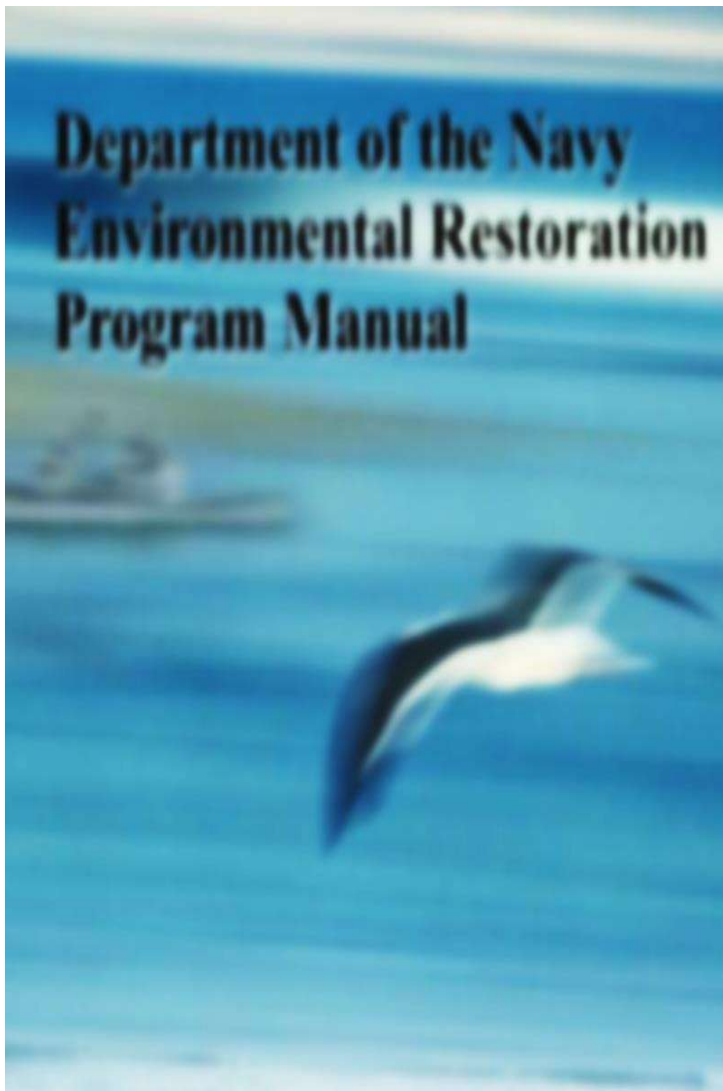
Additional Information Separate from HRA



Additional Information Separate from HRA



Site Indoctrination Process



- ER,N Eligibility
 - Meets definition of CERCLA Release
 - Inside Buildings generally do NOT meet the definition.
 - Special Circumstances do exist resulting in a release pathway
- Compliance and Non-ER,N Programs
 - Endpoint – not ER,N Eligible
 - No formal process to address G-RAM
 - Coordinate with Installation/Region.
 - RASO Oversight.

Site Indoctrination Process (cont.)



- Evaluation: Radiological Concerns Addressed
 - Will be addressed at existing site by process underway
 - Were addressed explicitly by ER,N remedial process
 - Addressed by actions already undertaken, but not explicitly for radiological concerns and adequate protection of human health and the environment is provided.
- Radiological Concerns Not Addressed: New vs Existing Site
 - Discuss with ER Manager to:
 - Re-open existing site
 - Creation of New ER,N site
 - Inclusion of radiological concerns into ongoing site activities
- **Coordinate with Stakeholders and RASO for Clear and Consistent Record of Actions Taken**

Site Indoctrination Process (cont.)



- Evaluation: Do Radiological Concerns Require Immediate Action?
 - **If the risk is clear and demonstrable actions may be taken to reduce risk**
 - **Clear evidence of release may result in direct entry into the ER,N program**
- **Entry of Impacted and AOI into the Program**
 - Single site created in NORM for all AOI to carry them through the PA or PA/SI stage.
 - **Can be named after impacted area or AOI likely to proceed beyond PA/SI phase.**
 - Preferred to have a breakpoint between the PA and SI to allow AOIs to be eliminated from further evaluation if supported by further evaluation.

The screenshot shows the 'Scheduler' application window. The title bar includes 'Scheduler', 'Edit', 'View', and 'Tools'. Below the title bar, there is a dropdown menu set to 'PENSACOLA FL NAS' and another set to 'CTC'. A tabbed interface shows 'Selector' as the active tab, with other tabs including 'Package', 'Task', 'Gantt', 'Tree', 'Document', and 'Op'. The main area displays a list of estimates under the heading 'Estimate Name'. Each entry consists of a green folder icon, a site ID, a description in parentheses, and the word 'Estimate'.

Estimate Name	
SITE 00001	(SANITARY LANDFILL) Estimate
SITE 00002	(WATERFRONT SEDIMENTS) Estimate
SITE 00004	(ARMY RUBBLE DISPOSAL SITE) Estimate
SITE 00005	(BORROW/ PIT) Estimate
SITE 00006	(FORT REDOUBT RUBBLE DISPO) Estim
SITE 00007	(FIREFIGHTING SCHOOL) Estimate
SITE 00008	(RIFLE RANGE DISPOSAL SITE) Estimate
SITE 00009	(NAVY YARD DISPOSAL SITE) Estimate
SITE 00010	(COMMODORES POND) Estimate
SITE 00011	(NORTH CHEVALIER FIELD DIS) Estimate
SITE 00012	(SCRAP BINS) Estimate
SITE 00013	(MAGAZINE POINT RUBBLE DIS) Estimate
SITE 00014	(DREDGE SPOIL FILL) Estimate
SITE 00015	(PESTICIDE DISCART DISPOS) Estimate

Preliminary Assessment and Site Investigations



- Statement of Work is Under development by the Radiological Workgroup
- Three Examples
 - Preliminary Assessment
 - Site Investigation
 - Combination Preliminary Assessment/Site Investigation
- Status is in Review by Overall Workgroup
- A tool is planned to provide information and examples of Workplans to accomplish Radiological work



Preliminary Assessment and Site Investigations



- Initial Study is also known as a Scoping Survey
 - Limited Sampling
 - Determine if a release has occurred
- No Further Action
 - Evidence that no release has occurred
 - Determination at the end of the PA/SI

NORM Site & Installation Request Form

Installation Addition Request

Page 1 of 2

Complete these 2 pages and send to the appropriate
NAVFAC ENV PM for approval.

RPM	XXX	FEC	XX
Phone ()		DSN	XXX FAX X
Installation			
Special Note		(Joint being transfer, New Eligibility, installation/site, etc)	
XX/XX/XX	1	Date RPM Filled Out	
XX/XX/XX	2	Date Sent to NAVFAC ENV PM	
	3	Date Received by NAVFAC ENV PM	
	4	Date NAVFAC ENV PM Sent Written Verification to FI	

Scoping Survey



- **Scoping survey activities performed for preliminary risk assessment or to provide input for:**
 - additional characterization include a limited amount of surface scanning, surface activity measurements, and sample collection (smears, soil, water, vegetation, paint, building materials, subsurface materials).
 - In this case, scans, direct measurements, and samples are used to examine areas likely to contain residual radioactivity. These activities are conducted based on HSA data, preliminary investigation surveys, and professional judgment.
 - Background activity and radiation levels for the area should be determined
 - Survey data are converted to the same units as those in which DCGLs (derived concentration guideline level) are expressed.
 - The process is iterative with the goal to achieve the proper classification and prioritization for each area or site.

Knowledge Check



- **Are all areas included in the HRA the responsibility of the ER,N Program to manage?**
 - Yes or No?
- **Does the RPM have to enter every individual area of interest into the NORM Process to begin the follow on studies and investigations?**
 - Yes or No?
- **Is the HRA a Primary Document?**
 - Yes or No?
- **Just because an HRA has not been completed or there are no known plans for one to be, it mean that G-RAM can not be discovered at a facility or site.**
 - True or False?

Key Take Away Messages

- The investigation and clean-up of G-RAM is technically challenging and requires specialized knowledge and expertise but the HRA and additional information provided to the Installation and RPM are designed to assist in planning and understanding the information.
- There is an approved Site Indoctrination Process to consistently bring areas of interest into the ER,N Program
- Tools are being developed to assist RPMs in developing Statements of Work and contract the follow on efforts
- It is important for the RPM to stay engaged throughout the process

Contacts and Questions



Points of Contact

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RASO General Number: 757-887-469

Questions ?